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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,364	07/14/2000	THOMAS ZELLERHOFF	P001334	2637

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EXAMINER	
NGUYEN, VAN KIM T	

ART UNIT	PAPER NUMBER
2661	7

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/600,364	ZELLERHOFF, THOMAS	
	Examiner	Art Unit	
	Van Kim T. Nguyen	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5, 8-10,12 and 14-17* is/are rejected.

7)☐ Claim(s) *4,6,7,11 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

This Office Action is responsive to communications filed on August 03, 2000.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-3, 5, 8-10, 12, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art, in view of Tanaka (US 5,513,178).

2. Regarding claims 1-3, 8, 10, 12 and 14-15, as shown in Figs. 3, the admitted prior art discloses a method for transmission in an ATM transmission system, comprising the step of supplying digital data of a specific plurality of data channels ($K_0 - K_n$) parallel to an input side of a sender (S); converting the digital data into data units (data stream D) that respectively comprise an plurality of bits from each of the data channels; serially transmitting the individual data units in a form of cells (ATM cells) that are respectively composed of a specific plurality of the data units, each cell having a specific, characteristic bit sequence (8 bit sequence of a specific VPI); receiving, by a receiver (E) the serially transmitted data units; successively dividing, beginning with the first data unit of the cell corresponding to the characteristic bit sequence, individual bits of each the data unit of the corresponding cell onto a plurality of parallel data channels of an output side of the receiver corresponding in number to the plurality of data channels of the input side of the sender and the bits of each data units are output parallel via corresponding the data channels of the output side (See Description of the Related Art, para. 0004-0006).

Regarding claim 9, the admitted prior art also discloses the step of serially transmitting the individual data units comprises transmitting the individual data units via an optical transmission medium (Description of the Related Art, para. 0005, lines 1-3).

3. However, the admitted prior art does not call for converting the digital data units that respectively comprise an identical plurality of bits from each of the data channel; and monitoring, by the receiver, the received data units for an occurrence of the characteristic bit sequence and, after identifying the characteristic bit sequence, identifying a first data unit of a cell corresponding to the characteristic bit sequence.

Regarding claim 5, the admitted prior art also does not call for the plurality of parallel data channels of the input side is four.

4. As shown in Figs. 1-26, Tanaka teaches a data units (VPIs) managing means (11, 53) for converting (12, 54) the digital data units that respectively comprise an identical plurality of bits (8 bits) from each of the data channel (col. 5: line 59 – col. 6: line 41); and monitoring (22, 23, 55), by the receiver, the received data units for an occurrence of the characteristic bit sequence (VPIs match), and after identifying the characteristic bit sequence, identifying a first data unit of a cell corresponding to the characteristic bit sequence (col. 6: line 42 – col. 7: line 14, cols. 7-15).

5. Since it is highly desirable to prevent communication path congestion in any telecommunications network systems, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Tanaka's method of cell multiplexing in an ATM transmission network environment as disclosed by the admitted prior art, motivated by the need of minimizing traffic congestion and maximizing data throughput.

Similarly, though the admitted prior art does not explicitly teach the plurality of parallel data channels of the input side is four, but since it is one of the available option presented and since it is highly desirable to prevent communication path congestion in any telecommunications network systems, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Tanaka's method of cell multiplexing in an ATM transmission network environment as disclosed by the admitted prior art, motivated by the need of minimizing traffic congestion and maximizing data throughput.

Claim Rejections - 35 USC § 103

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art, in view of Tanaka as applied to claims 1 and 14 above, and further in view of Kobayashi et al (US 5,566,179).

7. The combination of the admitted prior art and Tanaka discloses a method for transmitting data in an ATM transmission system, comprising all the limitations as disclosed in claims 1 and 14.

8. However, the combination of the admitted prior art and Tanaka does not call for the data channels supplied to the sender at a data transmission rate of approximately 830 Mbit/s and the transmission medium being an optical medium capable of transmitting data with a data rate of approximately 3.3 Gbits/s.

9. As shown in Figs. 1-12, Kobayashi teaches different ATM system architectures for transmitting data at different rates, with the transmission medium being optical medium capable of transmitting data with a data rate of 2.3 Gbit/s to 8.0 Gbit/s (cols. 2-10, esp. col. 9: lines 20-21).

10. Though Kobyashi does not explicitly teaches the data channels supplied to the sender at a rate of approximately 830 Mbit/s, but with the transmission medium capable of transmitting data at a rate of 3.3 Gbit/s or more (Fig. 9), it is obviously available as an option.

11. Since it is highly desirable to provide a flexible telecommunications network system capable of providing different services, it would have been obvious to one of ordinary skill in the art at the time the inventions was made to utilize the ATM system architecture as taught by Kobyashi in the combination of the admitted prior art and Tanaka, motivated by the needs to provide different transmission rate, depending on the service required by the end user.

Allowable Subject Matter

12. Claims 4, 6-7, 11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is an examiner's statement of reasons for allowance:

Claims are considered allowable when reading the claims none of the references of record alone or in combination disclose or suggest the combination limitations specified in the independent claims including serially transmitting characteristic bit sequence in two successive data units with respectively four bits in each of the successive data units, the individual data unit comprises one synchronous read-in bit from each of the data channels being arranged at the same location in every data units.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Tomlins (US 6,618,383); Sogabe et al (US 6,611,534); Duffy (US 6,535,527); Tayloe et al (US 6,301,269); Yoo (US 6,175,567); Caldara et al (US 5,948,067); Gaddis et al (US 5,905,729); Seid et al (US 5,768,271); Hiekali (US 5,619,500); Buhrgard (US 5,579,324); Ahmed et al (US 5,432,785) – all disclose system and method relating to transmission of data in an ATM transmission system.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 703-305-7692. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

vkn
September 26, 2003

Douglas W. Olms

DOUGLAS OLMS
SUPERVISORY PATENT EXAMINER
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